

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. Applicant/Contact name and address: **Bos Terra, LP
PO Box 169
Hobson, MT 59452**
2. Type of action: **Application to Change an Existing Irrigation Water Right No. 41S 30103036**
3. Water source name: **Judith River**
4. Location affected by project: **The project is located in Judith Basin County East of the town of Hobson, generally located in the SE1/4 Section 27, SE1/4 Section 34 and W2 Section 35, T15N, R15E, and N2 Section 3 and E2 Section 4, T14N, R15E.**
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:

Applicant proposes to change the point of diversion and place of use of the five irrigation water rights, specifically Statement of Claim Nos. 41S 7479, 41S 11663, 41S 16521, 41S 16519, and 41S 16518. The proposal includes the relocation of a pumpsite and reconfiguration of three center pivot irrigation systems, and addition of a fourth center pivot system. All of the irrigation water rights will be consolidated to appropriate water from the same diversion structure, and supply water to the same places of use. Collectively, the places of use for the four center pivots encompass 633.6 irrigated acres, replacing an existing 427.6 irrigated acres under three center pivots. There will be an expansion of acres irrigated under the change, but not the amount of water historically consumed. Additionally, Only 3 of the 4 center pivots will operate simultaneously.
6. Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)

**Dept. of Environmental Quality Website – Clean Water Act Information Center
MT. National Heritage Program Website - Species of Concern
USDI Fish & Wildlife Service Website - Endangered and Threatened Species
MT State Historic Preservation Office - Archeological/Historical Sites**

USDA Natural Resources Conservation Service – Web Soil Survey
USDI Fish & Wildlife Service – Wetlands Online Mapper

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity - Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.

Determination: **No Significant Impact.**

The Judith River is listed as a dewatered stream by DFWP. The stream reach listed as chronically dewatered begins at river mile 69.1 to 104.7. The stream reach listed as periodically dewatered begins at 104.7 ends at river mile 112.1. The Judith River also has FWP Instream Flow Protection/Qualifications. The tables below contain information relating to DFWP's Water Reservation and Instream Flow Protection.

Dewatered Concern Areas

Begin Mile	End Mile	Level of Concern	Lower Bound	Upper Bound
69.1	104.7	Chronic Dewatering	Big Spring Creek	Ackley Lake Diversion
104.7	112.1	Periodic Dewatering	Ackley Lake Diversion	Utica

FWP Instream Flow Protection/Quantification

Section: MOUTH to BIG SPRING CR Type: Water Reservation Granted River Miles: 0 to 69.1			
Begin Date	End Date	Flow (CFS)	Priority Date
01 / 01	12 / 31	160	07/01/1985
Section: BIG SPRING CR to JUDITH R, M FK Type: Water Reservation Granted River Miles: 69.1 to 127.1			
Begin Date	End Date	Flow (CFS)	Priority Date
01 / 01	12 / 31	25	07/01/1985

This project is to change the point of diversion and reconfigure the place of use for pivot irrigation. The Applicant will not increase historic use and therefore no adverse effects to water quantity are expected.

Water quality - Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.

Determination: **No Significant Impact.**

The DEQ website does list information regarding the Judith River. This project is simply to rearrange historic pivot irrigation and as such, no significant impacts to water quality are anticipated because of this project.

Groundwater - Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.

Determination: **No Significant Impact.**

The proposed change should not have a significant impact on ground water quality or supply. The proposed place of use may realize an increase in seasonal water table elevations; in turn, the potentiometric water surface under acres being retired from flood irrigation should see a decrease in elevation.

DIVERSION WORKS - Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.

Determination: **No Significant Impact.**

The proposal includes the relocation of a pumpsite and reconfiguration of three center pivot irrigation systems, and addition of a fourth center pivot system. The proposed new diversion point is located in the SENESE Section 27, T15N, R15E, Judith Basin County. No impacts to channel impacts, flow modifications, barriers, riparian areas, dams, and well construction are anticipated. Typical construction activities associated to diversion works installation can cause short-term disturbances; however, there is a low likelihood of any long term or significant impact because of this project.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species - Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."

Determination: **No Significant Impact.**

The Montana National Heritage Program lists one Species of Concern within Township 15 North, Range 15 East; the Northern Redbelly Dace. In Township 14 North, Range 15 East, the Montana National Heritage Program lists two Species of Concern; the Northern Redbelly Dace and the Northern Redbelly X Fine scale Dace. No impacts to any of these species are expected as the project area has been previously disturbed by past agriculture practices.

Wetlands - Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.

Determination: **No Significant Impact.**

The National Wetlands Inventory website shows Freshwater Emergent, Freshwater Ponds and Riverine type wetlands adjacent to the source and Applicant's proposed places of use. Wetlands should not be significantly impacted as a result of this project due to the project consisting of pivot irrigation practices that have already been in place following a previous change authorization.

Ponds - *For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

Determination: **No Significant Impact.**

This project does not involve a pond. No impact to wildlife, waterfowl, or fisheries is anticipated.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE - *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

Determination: **No Significant Impact.**

The NRCS Web Soil Survey shows the predominant soil unit under the proposed pivot locations is the Judith complex with 0 to 2 percent slopes. This unit consists of a clay-loam mix that is well drained. Due to the predominant soil unit under the proposed pivot locations being favorable for irrigation practices, there is a low likelihood of significant impact to soil quality because of this project.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

Determination: **No Significant Impact.**

Typical construction activities associated to pump & pipeline installation can cause short-term disturbances to vegetative cover; however, there is a low likelihood of any long term or significant impact because of this project. It is the responsibility of the land owner to control the spread of noxious weeds on their property.

AIR QUALITY - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

Determination: **No Significant Impact.**

No impacts to air quality or adverse effects to vegetation are expected as a result of this proposal, the project will utilize an electric pump.

HISTORICAL AND ARCHEOLOGICAL SITES - Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project if it is on State or Federal Lands. If it is not on State or Federal Lands simply state NA-project not located on State or Federal Lands.

Determination: **No Significant Impact**

Not Applicable – Project not located on State or Federal Lands

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - Assess any other impacts on environmental resources of land, water and energy not already addressed.

Determination: **No Significant Impact.**

No additional impacts are anticipated.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.

Determination: **No Significant Impact.**

No locally adopted environmental plans or goals have been identified.

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.

Determination: **No Significant Impact.**

The proposed action should not negatively impact recreational activities in the area.

HUMAN HEALTH - Assess whether the proposed project impacts on human health.

Determination: **No Significant Impact.**

No impacts to human health have been identified.

PRIVATE PROPERTY - Assess whether there are any government regulatory impacts on private property rights.

Yes___ No X___ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.

Determination: **No known impacts.**

OTHER HUMAN ENVIRONMENTAL ISSUES - For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.

Impacts on:

- (a) Cultural uniqueness and diversity? **None**
- (b) Local and state tax base and tax revenues? **None**
- (c) Existing land uses? **Predominantly pivot irrigation**
- (d) Quantity and distribution of employment? **None**
- (e) Distribution and density of population and housing? **None**
- (f) Demands for government services? **None**
- (g) Industrial and commercial activity? **None**
- (h) Utilities? **None**
- (i) Transportation? **None**
- (j) Safety? **None**
- (k) Other appropriate social and economic circumstances? **None**

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts – **The Applicant proposes to divert less volume with the new pivot system and as such, the timing of the return flow regime will be modified. Secondary impacts are expected to be minor, more water will be available in the stream during periods of pivot diversion and consumptive use for the new center pivot system as it relates to historic pivot irrigation will not change.**

Cumulative Impacts – **No cumulative impacts have been identified.**

3. *Describe any mitigation/stipulation measures:*

No mitigation or stipulation measures have been identified by the Applicant. The Department may impose a measurement condition to ensure required criteria are met.

4. *Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*

No action alternative: Deny the application. This alternative would result in no change to the existing water rights for irrigation.

PART III. Conclusion

1. Preferred Alternative

The preferred alternative is the proposed alternative.

2 Comments and Responses

None Received.

3. Finding:

Yes ___ No X Based on the significance criteria evaluated in this EA, is an EIS required?

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:

None of the identified impacts for any of the alternatives are significant as defined in ARM 36.2.524.

Name of person(s) responsible for preparation of EA:

Name: Michael Everett

Title: Water Resources Specialist – LRO

Date: 7/6/2016